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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Schottland, et. Al.	
Application No.: 10/063,791	
Filed: 5/13/2002	Group Art Unit: 2875
Title: Lamp Lens or Bezel with Visual Effect	Examiner: Lee, Guiyong
Attorney Docket No.: GEPL.P-049	

TRANSMITTAL OF APPEAL BRIEF

Pursuant to Rule 41.37 enclosed is one copy of a Brief for Appellant in support of the Appeal filed in this case on August 23, 2004.

No extensions of time are believed to be required. However, any extension deemed necessary to make this paper timely is herein requested. The Commissioner is authorized to charge deposit account no. 070862 for any fees associated with this filing.

Respectfully Submitted,

22 Oct 2004
Date

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I hereby certify that this paper and any attachments named herein are being deposited with the US Postal Service as first-class mail in an envelope addressed to: Mail Stop - Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 22, 2004.

Jill O'Neill

October 22, 2004
Date of Signature

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BRIEF FOR APPELLANT

This brief is filed in support of Applicants' Appeal from the final rejection mailed 4/22/2004. Consideration of the application and reversal of the Examiner's rejections are respectfully urged.

I. Real Party in Interest:

The real party in interest is General Electric Company.

II. Related Appeals and Interferences:

Appellant is aware of no related appeals or interferences.

III. Status of Claims:

Claims 1-70 and 72-101 are pending, rejected, and now appealed. Claim 71 has been canceled.

IV. Status of Amendments:

It is unclear whether the Examiner has entered the amendment made after the final rejection. In Examiner's final communication mailed on August 11, 2004, Examiner stated that the amendment would not be entered and then conversely stated that the amendment would be entered with a statement of why the claims are still rejected. Since the amendment of the claims and specification were made to correct typographical errors, Applicant assumes that the

amendment has been entered.

V. Summary of Claimed Subject Matter:

The present invention relates to lenses and bezels for lamps that provide a colored glow at the edges of the lens or bezel by incorporating a photoluminescent material within the molded polycarbonate body. *See* paragraphs [0007] and [0008] of the specification. Light that is transmitted through the lens or bezel from the inner to outer surfaces excites the photoluminescent material which emits light that is conducted through the lens or bezel and finally escapes at an edge surface thereof. *Id.* These lenses and bezels are particularly suitable for use in automotive applications, and can also improve the quality of the light emitted through the outer lens by interaction with the light bulb. *See* paragraphs [0009] through [0018] of the specification. The lighting performance may also be improved in such a manner as reducing glare, increasing brightness or producing a beam that enhances road visibility at night to the human eye. *Id.*

This visual edge glow is provided in the lenses of automotive headlamps of claim 1, the bezels of automotive headlamps of claim 43, and in after market parts for retrofitting lamps including the lenses of claim 58, the bezels of claim 77, and the method of making these parts of claim 96.

VI. Grounds of Rejection to be Reviewed on Appeal:

Claims 1, 31-33, 43, 58, 77, and 96 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Schöniger et al. (US 5,136,483) in view of Chase et al. (6,502,974 B2).

Claims 2-30, 34-42, 44-57, 59-70, 72-76, 78-95, and 97-101 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Schöniger et al. (US 5,136,483) and Chase et al. (US 6,502,974 B2) as applied to claim 1, 43, 58, 77 and 96, and further in view of Burns et al. (US 5,605,761).

VII. Argument:

Claims 1, 31-33, 43, 58, 77, and 96

The combination of Schöniger et al. (US 5,136,483) and Chase et al. (US 6,502,974 B2) with or without secondary references does not teach nor does it suggest the claimed visual ***edge*** effect of the present invention and thereby it does not render the invention obvious under 35 U.S.C. 103(a).

The present invention claims lenses, bezels, and headlamps containing lenses and bezels wherein white light transmitted from the inner to the outer surfaces thereof results in emission of light from a fluorescent dye therein contained. The fluorescent transmission of light is conducted along the polycarbonate of the lens or bezel until it escapes an edge thereof thereby creating the claimed visual ***edge*** effect of the present invention. The independent claim limitations "a visual effect at least at an edge" contained in claims 1 and 43, "a colored visual effect at the edge" contained in claims 58 and 77, and "luminescent visual effect occurs at least at an edge" contained in claim 96, are supported throughout the specification. Specifically, paragraphs [0007] and [0008] of the specification state:

> [0007] This application relates to lenses and bezels which can be used in combination with lamps to provide an aesthetic *visual effect in the form of a colored glow at the edge of the lens or bezel when the lamp is turned on.* In preferred applications, the lens is constructed and sized to serve as the outer lens of an automotive headlamp with or without a bezel. Headlamps may also be made which include a bezel providing a visual effect with a conventional lens. Alternatively, the lens or bezel may be designed to fit on a flashlight or other lamp.
>
> [0008] The lens of the present invention comprises a molded body having a generally concave outer surface, a flat or convex inner surface and an edge surface, wherein the molded body is formed from a composition comprising polycarbonate and a photoluminescent material. Light which includes light of a wavelength within the excitation spectrum of the photoluminescent material is partially absorbed and partially transmitted. The absorbed light is at least partially (depending on the quantum yield of the luminescence) emitted as *light of a higher wavelength (as a result of a Stokes shift) and is conducted to a substantial extent to the edge surface of the lens thereby creating a colored visual effect at the edge of the lens.* As used in the specification and claims of this application, the term

"substantial extent" means in an amount effective to create an observable visual effect. Generally at least 10 % of the light emitted by photoluminescence is conducted through the interior of the lens to the edges, preferably at least 30 %. This is achieved in polycarbonate lenses and bezels because the high index of refraction results in significant amount of internal reflection. (*See* Specification at paragraphs [0007] and [0008]).

Figure one demonstrates the aforementioned visual ***edge*** effect limitations of the present invention. As light passes through the polycarbonate of the lens or bezel the electrons of the photoluminescent material become excited to a higher "excited" energy state. The photoluminescent material then loses part of its excess energy by falling to a lower vibrational energy state such that the emitted fluorescence is of a longer (red-shifted) wavelength. *See* paragraph [0009] of the specification. The emitted light travels along the polycarbonate and escapes at an edge thereof, thereby providing a colored visual ***edge*** effect.

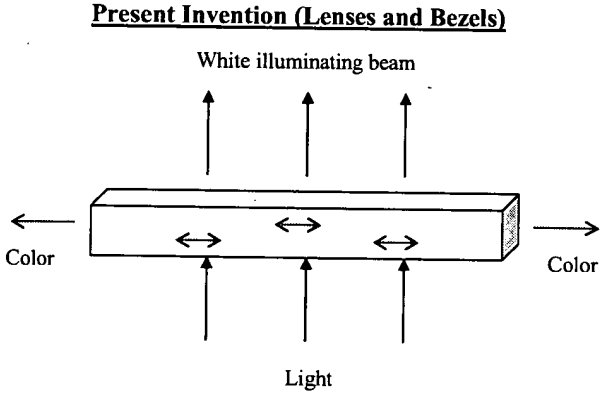


Fig. 1

The Examiner has rejected all independent claims, namely 1, 43, 58, 77, and 96, and

dependant claims 31-33 under § 103 (a) as being unpatentable over Schöniger et al. (US 5,136,483) in view of Chase et al. (US 6,502,974 B2). The Examiner cites Schöniger's slab "containing fluorescent particles" as a lens that "provides a visual effect". *See* advisory action mailed on 8/11/2004. Examiner cites Chase as suggesting modification of Schöniger such that Schöniger's slab may be made from polycarbonate. However, Schöniger's visual effect is not the visual ***edge*** effect of the present invention. Schöniger's visual effect occurs not an edge but at a major surface of the slab. As figure two demonstrates the entire luminous flux within the Schöniger slab is reflected at its edges directly back into the slab until it exits the slab at the light illuminating surface thereby providing Schöniger's visual effect. This is simply not the visual ***edge*** effect of the present invention. Examiner has consistently failed to address this visual ***edge*** effect limitation found in each and every independent claim of the present invention. Further, Examiner cites no reference that would modify or suggest modification of Schöniger such that Schöniger's slab provide the claimed visual ***edge*** effect of the present invention.

Examiner maintains the position in which he ignores the visual ***edge*** effect limitations of the independent claims of the present application. Assuming, arguendo, that such a modification of Schöniger is appropriate, the combination does not arrive at the claimed headlamps, lenses, or bezels with the claim limitations of "a visual effect at least at an edge" contained in claims 1 and 43, "a colored visual effect at the edge" contained in claims 58 and 77, and "luminescent visual effect occurs at least at an edge" contained in claim 96. The Examiner has yet to address these limitations.

As figure two demonstrates, Schöniger provides no more than a slab of glass or transparent resin that is peripherally bound by a reflective material. This reflective material bars the possibility of the slab from emitting light from an edge thereof. Because Schöniger's slab is peripherally bound by the reflective material, light that is conducted within the slab is reflected at the edges directly back into the slab.

Schöniger et al. (X-Section Peripherally Bound Slab)

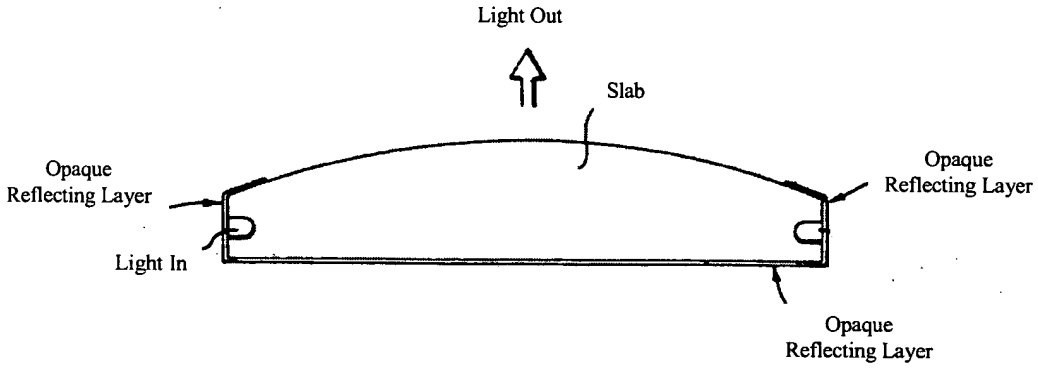


Fig. 2

Schöniger's specification expressly teaches of the total reflection of light from the edge back into the slab thus providing for no possibility of a arriving at the visual ***edge*** effect as claimed by the present invention:

> This layer [the inwardly reflecting layer] may be produced by sputtering, by the adhesive bonding of a film or by electrolytic deposition so that the respective surfaces are mirrored and the **entire luminous flux is reflected thereat and cast back into the interior space**. (*See* Schöniger, Column 3, lines 44 - 48).

Schöniger consistently teaches of eliminating the possibility of light emission at the edge(s) of the slab in the:

1. abstract;

> ... It [the illuminating device] comprises as its main parts a generally flat transparent illuminating element with a circumferential edge in which a plurality of light emitting elements such as LED's are set. *The edges are provided with an inwardly reflecting layer....* (*See* Schöniger, Abstract).

2. figures;

FIG. 1

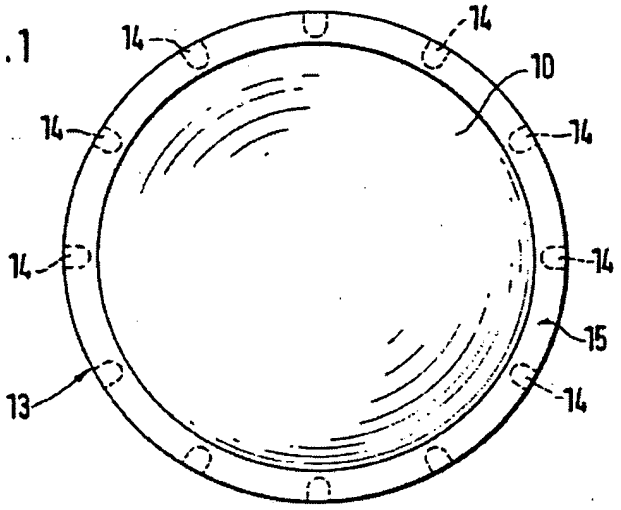


FIG. 2

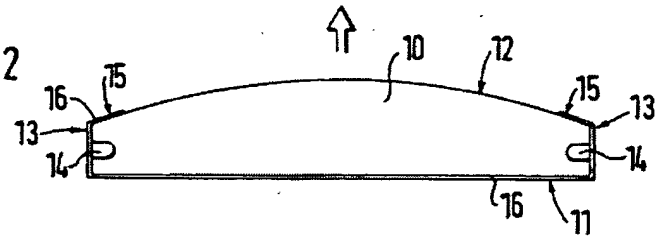
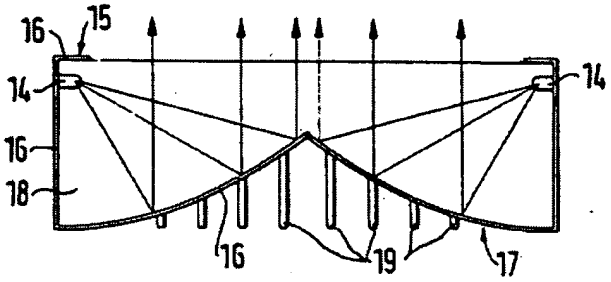


FIG. 3



3. background;

The invention relates to an illuminating device such as a headlamp, signaling lamp, that is to say lamps shining light in beam or otherwise, comprising an essentially flat transparent illuminating element with a plurality of light emitting elements such as LED's set in marginal edge thereof, *such edges being provided with a reflecting layer.* (*See* Schöniger, Column 1, lines 5 - 11).

4. short summary;

Even distribution on the circumferential edges means that the light radiating area is very evenly illuminated, the light being fully directed in a forward direction owing to the completely reflecting layer on the rear side. *Emergence of light at the edges is effectively prevented by a further reflecting layer.* (*See* Schöniger, Column 2, lines 6 - 11).

5. and in each independent claim;

1. An illuminating device, comprising: . . . *a reflecting layer provided in said housing on said rear surface thereof and along said circumferential sidewall, said reflective layer reflecting inwardly with respect to said housing.* (*See* Schöniger, Column 5, lines 3 - 7).

10. A light projector for illuminating distant objects, comprising: . . . *circumferential side wall and said front lip for reflecting light inwardly from each of said area surface, said circumferential side wall and said front lip*; . . . (*See* Schöniger, Column 6, lines 18 - 21).

The Examiner cites Chase as modifying Schöniger's slab only to the extent that the slab may be formed from polycarbonate. Chase is not cited to modify Schöniger so as to provide a visual effect at the edge of Schöniger's slab. This modification does not overcome the deficiencies of Schöniger and does not arrive at the presently claimed invention.

In addition to the fact that the combination of Schöniger and Chase provide for no possibility of the claimed visual ***edge*** effect, structural differences between the combination of references and the present invention further render the present invention unobvious. As shown in figure two, light is introduced to the Schöniger slab at the edge thereof and is conducted along the slab until it exits at the light radiating surface. (*See* figure two). In contrast, the present invention provides headlamps wherein light is introduced to the lens or bezel not at the edge but

at a major surface thereof and exits the material at a major surface thereof. (*See* figure one). For this reason alone the combination of Schöniger and Chase does not render the present invention obvious.

Claims 2-30, 34-42, 44-57, 59-70, 72-76, 78-95, and 97-101

The Examiner has also rejected claims 2-30, 34-42, 44-57, 59-70, 72-76, 78-95 and 97-101 under 35 U.S.C. § 103 (a) as being unpatentable over Schöniger, Chase and further in view of Burns et al. (US 5,605,761). Burns is cited as suggesting modification of Chase such that polycarbonate articles may contain fluorescent dye, however Burns does not overcome the deficiencies of the combination of Schöniger and Chase in that the combination provides for no possibility of the claimed visual ***edge*** effect.

The present invention is not obvious under 35 U.S.C. 103(a) and Schöniger does not teach of or even remotely suggest a slab with the claimed visual ***edge*** effect. Further, no reference cited by the Examiner will overcome the deficiencies of Schöniger. For these reasons Applicant respectfully requests the Board to reverse the rejections made by the Examiner.

Respectfully Submitted,

22 Oct 2004
Date

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VIII. CLAIMS APPENDIX

Claims Involved in the Appeal

1. An automotive headlamp comprising,

a housing for receiving a light source and an outer lens disposed such that light from a light source disposed in the housing passes through the lens,

a reflector disposed within the housing wherein the reflector reflects light from a light source disposed within the housing toward the lens,

wherein the lens comprises a polycarbonate and a photoluminescent material and provides a visual effect at least at an edge of the lens as a result of photoluminescence from the photoluminescent material, and

wherein the housing, reflector, and lens work together with a light source disposed in the housing to provide an output beam from the headlamp.

2. The headlamp of claim 1, wherein the photoluminescent material is an organic fluorescent dye.

3. The headlamp of claim 2, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

4. The headlamp of claim 3, wherein the fluorescent dye provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

5. The headlamp of claim 4, wherein the fluorescent dye is included at a concentration of 0.3 to 0.1% by weight.

6. The headlamp of claim 4, wherein the fluorescent dye is included at a concentration of 0.1% to 0.005% by weight.

7. The headlamp of claim 3, wherein the fluorescent dye provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

8. The headlamp of claim 7, wherein the fluorescent dye is included at a

concentration of 0.0001% to 0.0003% by weight.

9. The headlamp of claim 2, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

10. The headlamp of claim 9, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

11. The headlamp of claim 2, wherein the lens has one or more rib lines molded in the exterior surface thereof.

12. The headlamp of claim 11, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

13. The headlamp of claim 12, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

14. The headlamp of claim 2, wherein the fluorescent dye has a quantum yield of 0.7 or greater.

15. The headlamp of claim 14, wherein the fluorescent dye has a quantum yield of 0.9 or greater.

16. The headlamp of claim 1, wherein the exterior surfaces of the lens are coated with a UV-protective coating.

17. The headlamp of claim 16, wherein the photoluminescent material is an organic fluorescent dye.

18. The headlamp of claim 17, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

19. The headlamp of claim 18, wherein the fluorescent dye provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

20. The headlamp of claim 19, wherein the fluorescent dye is included at a concentration of 0.3 to 0.1% by weight.

21. The headlamp of claim 19, wherein the fluorescent dye is included at a concentration of 0.1 to 0.005% by weight.

22. The headlamp of claim 18, wherein the fluorescent dye provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

23. The headlamp of claim 22, wherein the fluorescent dye is included at a concentration of 0.0001% to 0.0003% by weight.

24. The headlamp of claim 17, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

25. The headlamp of claim 24, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

26. The headlamp of claim 17, wherein the lens has one or more rib lines molded in the exterior surface thereof.

27. The headlamp of claim 26, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

28. The headlamp of claim 26, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

29. The headlamp of claim 17, wherein the fluorescent dye has a quantum yield of 0.7 or greater.

30. The headlamp of claim 29, wherein the fluorescent dye has a quantum yield of 0.9 or greater.

31. The headlamp of claim 1, further comprising a bezel disposed between the lens and the housing.

32. The headlamp of claim 31, wherein the bezel comprises a polycarbonate and an photoluminescent material which may be the same as or different from the photoluminescent dye in the lens.

33. The headlamp of claim 32, wherein the photoluminescent dye in the bezel produces a visual effect of a different color from the photoluminescent dye in the lens.

34. The headlamp of claim 33, wherein the photoluminescent material included in the bezel is an organic fluorescent dye.

35. The headlamp of claim 34, wherein the fluorescent dye included in the bezel is included at a concentration of 1 % or less by weight of the polycarbonate.

36. The headlamp of claim 35, wherein the fluorescent dye in the bezel provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

37. The headlamp of claim 36, wherein the fluorescent dye in the bezel is included at a concentration of 0.3 to 0.1% by weight.

38. The headlamp of claim 36, wherein the fluorescent dye in the bezel is included at a concentration of 0.1 to 0.005% by weight.

39. The headlamp of claim 35, wherein the fluorescent dye in the bezel provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

40. The headlamp of claim 39, wherein the fluorescent dye in the bezel is included at a concentration of 0.0001% to 0.0003% by weight.

41. The headlamp of claim 34, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

42. The headlamp of claim 41, wherein the fluorescent dye in the bezel is included at a concentration of 1 % or less by weight of the polycarbonate.

43. An automotive headlamp comprising,

a housing for receiving a light source, a bezel and an outer lens disposed such that light from a light source disposed in the housing passes through the bezel and the lens,

a reflector disposed within the housing wherein the reflector reflects light from a

light source disposed within the housing toward the lens,

wherein the bezel comprises a polycarbonate and an photoluminescent material and wherein the bezel provides a visual effect at least at an edge of the bezel as a result of photoluminescense from the photoluminescent material, and

wherein the housing, reflector, bezel and lens work together with a light source disposed within the housing to provide an output beam from the headlamp.

44. The headlamp of claim 43, wherein the photoluminescent material is an organic fluorescent dye.

45. The headlamp of claim 44, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

46. The headlamp of claim 45, wherein the fluorescent dye provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

47. The headlamp of claim 46, wherein the fluorescent dye is included at a concentration of 0.3 to 0.1% by weight.

48. The headlamp of claim 46, wherein the fluorescent dye is included at a concentration of 0.1 to 0.005% by weight.

49. The headlamp of claim 45, wherein the fluorescent dye provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

50. The headlamp of claim 49, wherein the fluorescent dye is included at a concentration of 0.0001% to 0.0003% by weight.

51. The headlamp of claim 44, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

52. The headlamp of claim 51, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

53. The headlamp of claim 44, wherein the fluorescent dye has a quantum yield of 0.7 or greater.

54. The headlamp of claim 53, wherein the fluorescent dye has a quantum yield of 0.9 or greater.

55. The headlamp of claim 43, wherein the photoluminescent material is an organic nano-particle.

56. The headlamp of claim 55, wherein the organic nano-particle comprises a fluorescent dye selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, or (2,5-bis[5-tert-butyl-2-benzoxazolyl]- thiophene) and all their derivatives.

57. The headlamp of claim 43, wherein the photoluminescent material is an inorganic nano-particle.

58. A lens comprising a molded body having a generally concave outer surface, a generally flat or convex inner surface and an edge surface, wherein the molded body is formed from a composition comprising polycarbonate and an photoluminescent material, wherein white light transmitted through the lens from the inner surface to the outer surface forms an output beam, and wherein the transmission of white light through the lens results in emission from the fluorescent dye which is conducted to a substantial extent to the edge surface of the lens thereby creating a colored visual effect at the edge of the lens.

59. The lens of claim 58, wherein the photoluminescent material is an organic fluorescent dye.

60. The lens of claim 59, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

61. The lens of claim 59, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

62. The lens of claim 61, wherein the fluorescent dye is included at a concentration of 1% or less by weight of the polycarbonate.

63. The lens of claim 61, wherein the fluorescent dye in the bezel provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

64. The lens of claim 63, wherein the fluorescent dye in the bezel is included at a concentration of 0.3 to 0.1% by weight.

65. The lens of claim 63, wherein the fluorescent dye in the bezel is included at a concentration of 0.1 to 0.005% by weight.

66. The lens of claim 59, wherein the fluorescent dye in the bezel provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

67. The lens of claim 66, wherein the fluorescent dye in the bezel is included at a concentration of 0.0001% to 0.0003% by weight.

68. The lens of claim 59, wherein the lens has one or more rib lines molded in the exterior surface thereof.

69. The lens of claim 68, wherein the fluorescent dye is selected from the group consisting of perylenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

70. The lens of claim 68, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

71. (canceled)

72. The lens of claim 59, wherein the lens has an UV-protective coating on the outer surface and the edge surface.

73. The lens of claim 59, wherein the lens has an UV-protective coating on the inner and outer surfaces and the edge surface.

74. The lens of claim 58, wherein the photoluminescent material is an organic nanoparticle.

75. The lens of claim 74, wherein the organic nano-particle comprises a fluorescent dye selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, or (2,5-bis[5-tert-butyl-2-benzoxazolyl]- thiophene) and all their derivatives.

76. The lens of claim 58, wherein the photoluminescent material is an inorganic

nano-particle.

77. A bezel comprising an annular molded body having a generally concave outer surface, a generally flat or convex inner surface and inner and outer edge surfaces, wherein the molded body is formed from a composition comprising polycarbonate and an photoluminescent material, and wherein white light transmitted through the bezel results in emission from the fluorescent dye which is conducted to a substantial extent to the edge surfaces of the bezel thereby creating a colored visual effect at the edges of the bezel.

78. The bezel of claim 77, wherein the photoluminescent material is an organic fluorescent dye.

79. The bezel of claim 78, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

80. The bezel of claim 78, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

81. The bezel of claim 80, wherein the fluorescent dye is included at a concentration of 1% or less by weight of the polycarbonate.

82. The bezel of claim 78, wherein the fluorescent dye in the bezel provides a blue or violet visual effect and the fluorescent dye is included at a concentration of 0.5 to 0.001% by weight.

83. The bezel of claim 82, wherein the fluorescent dye in the bezel is included at a concentration of 0.3 to 0.1% by weight.

84. The bezel of claim 82, wherein the fluorescent dye in the bezel is included at a concentration of 0.1 to 0.005% by weight.

85. The bezel of claim 78, wherein the fluorescent dye in the bezel provides a red, orange or green visual effect and the fluorescent dye is included at a concentration of less than 0.0005% by weight.

86. The bezel of claim 85, wherein the fluorescent dye in the bezel is included at a concentration of 0.0001% to 0.0003% by weight.

87. The bezel of claim 78, wherein the bezel has one or more rib lines molded in the

exterior surface thereof.

88. The bezel of claim 87, wherein the fluorescent dye is selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, (2,5-bis[5-tert-butyl-2-benzoxazolyl]thiophene) and derivatives thereof.

89. The bezel of claim 88, wherein the fluorescent dye is included at a concentration of 1 % or less by weight of the polycarbonate.

90. The bezel of claim 78, wherein the bezel is compliant with SAE standards for automotive headlamps.

91. The bezel of claim 78, wherein the bezel has an UV-protective coating on the outer surface and the edge surfaces.

92. The bezel of claim 78, wherein the bezel has an UV-protective coating on the inner and outer surfaces and the edge surfaces.

93. The bezel of claim 77, wherein the photoluminescent material is an organic nanoparticle.

94. The bezel of claim 93, wherein the organic nano-particle comprises a fluorescent dye selected from the group consisting of perylenes, anthracenes, indigoids and thioindigoids, imidazoles, naphtalimides, xanthenes, thioxanthenes, coumarins, rhodamines, or (2,5-bis[5-tert-butyl-2-benzoxazolyl]- thiophene) and all their derivatives.

95. The bezel of claim 77, wherein the photoluminescent material is an inorganic nano-particle.

96. A method for making a bezel having a luminescent visual effect for an automotive headlamp, comprising the steps of preparing a molding composition comprising a polycarbonate and a photoluminescent material, molding the lens or bezel from the molding composition, and optionally forming cuts or protrusions, or both, in a surface of the lens or bezel article to define the graphic image, wherein the step of forming the cuts or protrusions can occur during or subsequent to the molding step, and wherein the luminescent visual effect occurs at least at an edge of the lens or bezel and at cuts and protrusions formed therein.

97. The method of claim 96, wherein the photoluminescent material is an organic fluorescent dye.

98. The method of claim 96, wherein the photoluminescent material is an organic nano-particle comprising an organic fluorescent dye.

99. The method of claim 96, wherein the photoluminescent material is an inorganic nano-particle.

100. The headlamp of claim 1, wherein the light source and the material of the lens are selected such that light emitted from the light source is modified in chromaticity as it passes through the lens such that the illuminating beam from the headlamp has an average x chromaticity coordinate of between 0.31 to 0.50.

101. The headlamp of claim 43, wherein the light source and the material of the bezel and lens are selected such that light emitted from the light source is modified in chromaticity as it passes through the lens such that the illuminating beam from the headlamp has an average x chromaticity coordinate of between 0.31 to 0.50.

IX. EVIDENCE APPENDIX:

No additional evidence is presented.

X. RELATED PROCEEDINGS APPENDIX

Appellant is aware of no related appeals or interferences.